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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,637	04/16/2004	Dale A. Grove	25319A	1433
22889	7590	10/07/2005	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			RUDDOCK, ULA CORINNA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,637

Applicant(s)

GROVE ET AL.

Examiner

Ula C. Ruddock

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 29-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-28, drawn to a gypsum facing material, classified in class 442, subclass 42.
 - II. Claims 2-50, drawn to a method forming a gypsum facer, classified in class 156, subclass 39.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be made by another method, i.e. by spray coating the first binder onto the mesh and then spray coating the secondary coating.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Maria Gasaway on August 22, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 29-50 are

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

DETAILED ACTION

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14, 19, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 14, the phrase "needle- like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by " like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 19 is currently dependent upon claim 17. Claim 17 does not require the presence of polymeric fibers, but claim 19 is positively reciting the use of polymeric fibers.

Clarification/correction is required.

In Claim 22, the use of tradename Advantex® render the claim indefinite as to scope because it is not clear if the claim intends only materials sold under this tradename at the time of Applicant's invention, or whether material with the same composition, but sold under other tradenames are also included. Further, it is not clear if the claims are limited to materials sold under this tradename in the future, when the composition may have been changed. It is not possible to determine the scope of these claims. Clarification is required. See *Ex parte Simpson* and *Roberts*, 218 USPQ 1020 (BdPatApp&Int 1982)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 7-12, 15-18, 20, 21, 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2003/0203191) in view of Smith et al. (US 2002/0151240). Randall et al. disclose a mat-faced gypsum board. The board comprises a set gypsum core sandwiched between and faced with mats of glass fibers (abstract). The mat is formed of chopped glass strands [0038] and is bound together with a resin binder, typically a urea-formaldehyde resin adhesive [0039]. This binder equates to Applicant's first binder resin. The glass fibers are typically wet-formed [0040]. The coating composition comprises a polymer latex adhesive, an inorganic adhesive binder, and mineral pigments [0041]. Examples of polymer latex binder include styrene-butadiene-rubber [0049] and styrene acrylic latex [0059]. The polymeric binder is present

in the amount of 5% by weight [0041]. The inorganic binder comprises compounds such as calcium oxide, calcium silicate, calcium sulfate, magnesium oxychloride, magnesium oxysulfate, or aluminum hydroxide. The filler can be clay, sand, or calcium carbonate [0018]. The filler is present in an amount of 75-98% [0041]. Regarding the reinforcing agent, Randall et al. discloses the use of mica [0042]. Randall et al. Discloses the invention except for the teaching that the mat is a mesh and that a coated secondary reinforcing glass fabric is layered onto the mesh.

Smith et al. (US 2002/0151240) disclose a composite facer for wallboard comprising a glass scrim reinforcement [0015] bonded to a glass nonwoven mat [0017]. The two layers are bonded together using an acrylic adhesive [0015]. The adhesive material with bond the yarns of the reinforcement fabric together. It should be noted that the examiner is equating the acrylic adhesive of Smith to the coating on the veil of the present invention. It would have been obvious to have used Smith's teaching of a glass mesh in place of the fiberglass mat of Randall et al., motivated by the desire to create a gypsum facing material that is strong yet lightweight. It also would have been obvious to have used Smith's teaching of an acrylic-coated glass mat in addition to the fibrous material of Randall et al, motivated by the desire to create a gypsum facing material that has increased structural integrity.

Randall et al. and Smith et al. disclose the claimed invention except for the teaching that the organic binder comprises at least 6-10% of the total weight of the second binder resin. It should be noted that the amount of organic binder is a result effective variable. The amount of organic binder directly affects the water resistant properties of the gypsum board. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made

to have used 6-10% of the organic binder, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the amount of organic binder motivated by the desire to create a coating that has increased water resistance.

Regarding claims 23, 25, and 26, it is the Examiner's position that these claims are disclosing method limitations. It has been held that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, these limitations have not been given patentable weight. Additionally, the introduction of the high aspect ratio particles to the first binder resin prior to the introduction of the secondary binder resin, would not result in a change of the final product.

10. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2003/0203191) and Smith et al. (US 2002/151240) as applied to claim 1 above, and further in view of Murphy et al. (US 6,176,920) or Porter et al. (US 2005/0009428). Randall et al. and Smith et al. disclose the claimed invention except for the teaching that the binder resin further comprises a thermosetting resin and a crosslinking agent.

Murphy et al. (US 6,176,920) disclose a cementitious structural panel comprising a fiberglass mesh (col 3, ln 54). A coating composition is used and includes crosslinking agents (col 8, ln 14-25).

Porter et al. (US 2005/0009428) disclose fabric reinforcement and cementitious boards faced with the same. The fabrics can be a non-woven mesh [0108] coated with binder compositions that include a thermoset resin [0091]. It would have been obvious to one having ordinary skill in the art to have used Murphy's teaching of a crosslinking agent and Porter's teaching of a thermosetting

resin in the gypsum facing panel of Randall et al. and Smith et al., motivated by the desire to create a gypsum board that has increased weatherability and durability.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2003/0203191) and Smith et al. (US 2002/151240) as applied to claim 1 above, and further in view of Harkness (US 4,755,409). Randall et al. and Smith et al. disclose the claimed invention except for the teaching that the reinforcing agent is fibrous.

Harkness (US 4,755,409) discloses a waterproofing laminate suitable for roofs comprising a reinforcing sheet (abstract). The reinforcing fabric can be a glass scrim (col 4, ln 4-6) and can be laminate to an elastomeric sheet that comprises fibrous fillers including wool and cotton fibers (col 3, ln 44-49). It would have been obvious to have used the fibrous fillers of Harkness in the gypsum board facing material of Randall et al. and Smith et al., motivated by the desire to create a material that has increased strength.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UCR *UCR*

Ula Ruddock
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Primary Examiner
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